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Docket No.: RSW920010183US1 (7161-017U)

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46320
	:	
Virinder BATRA, et al.	:	Confirmation Number: 3519
	:	
Application No.: 10/077,012	:	Group Art Unit: 2145
	:	
Filed: February 15, 2002	:	Examiner: A. Choudhury
	:	
For:		COMMON LOCATION-BASED SERVICE ADAPTER INTERFACE FOR LOCATION BASED SERVICES

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed November 17, 2006, and in response to the Examiner reopening prosecution in the Office Action dated May 30, 2007, and in the Office Action dated December 12, 2007, wherein Appellants appeal from the Examiner's rejection of claims 1-6.

**I. REAL PARTY IN INTEREST**

This application is assigned to IBM Corporation by assignment recorded on February 15, 2002, at Reel 012618, Frame 0349.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any related appeals and interferences.

### **III. STATUS OF CLAIMS**

Claims 1-6 are pending and five-times rejected in this Application. It is from the multiple rejections of claims 1-6 that this Appeal is taken.

### **IV. STATUS OF AMENDMENTS**

The claims have not been amended subsequent to the imposition of the Sixth Office Action dated December 12, 2007 (hereinafter the Sixth Office Action).

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Referring to Figure 1 and to independent claims 1 and 5, a method of processing requests 125 from location-based service applications 110 for location-based services provided by a plurality of disparate location-based service providers 150 by a location service 140 is disclosed. Different ones of the plurality of disparate location-based service providers 150 specify different formats for receiving the requests 125/135 (page 8, line 21 through page 9, line 6 of Appellants' disclosure). The requests 125 are received for location based-services 140 (page 8, lines 16-22). From each request 125, a particular location-based service provider 150, which can service the request 125, is determined (page 8, line 21 through page 9, line 3). Each request 125/135 is specifically formatted according to a specific format specified by the particular location-based service provider 150 (page 9, lines 12-13). Each result set 115 produced from corresponding ones of the requests 135 is uniformly formatted (page 9, lines 13-18). The uniformly formatted result sets 145 are forwarded to the location-based service applications 110 (page 10, lines 1-8).

Referring to Figure 1 and to independent claim 3, a common location-based service adapter interface 140 that includes a uniform input interface and uniform output interface is

1 disclosed (page 8, lines 13-20). Location-based services are requested 125 through the uniform  
2 input interface using a uniform format which is independent of any specific formatting required  
3 by a particular service adapter 150 configured to process the location-based services (page 8, line  
4 21 through page 9, line 11). Specifically formatted result sets can be formatted using the  
5 uniform format through the uniform output interface (page 10, lines 1-9). The uniform input  
6 interface is adapted to be connected to different service adapters 150 specifying different formats  
7 for receiving inputs (page 8, line 21 through page 9, line 6).

#### **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-6 were rejected under 35 U.S.C. § 103 for obviousness based upon Requena, U.S. Patent Publication No. 2002/0126701 (hereinafter Requena), in view of Kang-Jun Lee et al., "Development of an XML Data Provider Supporting the OpenGIS Specification" (hereinafter Lee).

## **VII. ARGUMENT**

### **THE REJECTION OF CLAIMS 1-6 UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON**

#### **REQUENA IN VIEW OF LEE**

For convenience of the Honorable Board in addressing the rejections, claim 2-6 stand or fall together with independent claim 1.

As is evident from Appellants' previously-presented comments during prosecution of the present Application and from Appellants' comments below, there are questions as to how the limitations in the claims correspond to features in the applied prior art. In this regard, reference is made to M.P.E.P. § 1207.02, entitled "Contents of Examiner's Answer." Specifically, the following is stated:

(A) CONTENT REQUIREMENTS FOR EXAMINER'S ANSWER. The examiner's answer is required to include, under appropriate headings, in the order indicated, the following items:

...

(9)(e) For each rejection under 35 U.S.C. 102 or 103 where there are questions as to how limitations in the claims correspond to features in the prior art even after the examiner complies with the requirements of paragraphs (c) and (d) of this section, the examiner must compare at least one of the rejected claims feature by feature with the prior art relied on in the rejection. The comparison must align the language of the claim side-by-side with a reference to the specific page, line number, drawing reference number, and quotation from the prior art, as appropriate. (emphasis added)

Therefore, if the Examiner is to maintain the present rejections and intends to file an Examiner's Answer, the Examiner is required to include the aforementioned section in the Examiner's Answer.

At the outset, Appellants note that the Examiner has previously relied upon Requena in a rejection of claims 1-6 under 35 U.S.C. § 102. This rejection was traversed in the First Appeal Brief dated January 17, 2007 (hereinafter the First Appeal Brief). In response to First Appeal Brief,

1 the Examiner opened prosecution in the Fourth Office Action dated May 30, 2007, in which the  
2 Examiner rejected claims 1-6 under 35 U.S.C. § 102 for anticipation based upon McDowell.  
3 Appellants traversed that rejection in the Second Appeal Brief dated August 30, 2007. In response  
4 to this successful traversal, the Examiner yet again reopened prosecution and again relied upon the  
5 teachings of Requena, albeit in a rejection under 35 U.S.C. § 103 for obviousness.

6  
7 Claim 1

8 Obviousness is a legal conclusion based on underlying facts of four general types, all of  
9 which must be considered by the trier of fact: (1) the scope and content of the prior art; (2) the  
10 level of ordinary skill in the art; (3) the differences between the claimed invention and the prior  
11 art; and (4) any objective indicia of nonobviousness.<sup>1</sup> Referring to the paragraph spanning pages  
12 2 and 3 of the Sixth Office Action, the Examiner identified each of the claimed limitations within  
13 claim 1 and asserted that each of these limitations are taught by Requena. Based upon this  
14 paragraph alone, the Examiner's analysis appears to be that Requena is an anticipatory reference  
15 under 35 U.S.C. § 102. However, in the last paragraph on page 3 of the Sixth Office Action, the  
16 Examiner asserts that Requena fails to teach certain limitations. As such, Appellants' position is that  
17 the Examiner's rejection has not clearly characterized the differences between the claimed invention  
18 and the applied prior art since on one hand, the Examiner is asserting that Requena teaches all of the  
19 claimed limitations, yet on the other hand, the Examiner is asserting that Requena does not teach all  
20 of the claimed limitations.

21  

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<sup>1</sup> See *KSR Int'l v. Teleflex Inc.*, 550 U.S. \_\_\_\_ (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966);  
*Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1270, 20 USPQ2d 1746, 1750-51 (Fed. Cir. 1991);  
*Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566-68, 1 USPQ2d 1593, 1594 (Fed. Cir. 1987).

Independent claim 1, in part, recites the following limitations:

determining from each said request a particular location-based service provider which can service said request.

To teach this limitation, the Examiner asserted the following on pages 2 and 3 of the Sixth Office Action:

determining from each said request a particular location-based service provider which can service said request (*After receipt by the HSS/Presence server, the CSCF determines available location-based services; see paragraphs 209 and 213, Requena*) (emphasis in original)

Contrary to the Examiner's position, the Examiner's cited passages do not teach the limitations at issue. Referring to paragraph [0213], Requena teaches that the query is sent to the Location Based Services server based upon "information of that user either in the [Home Subscriber Server] or in the Presence Server." This teaching is not comparable to the claimed determining a particular location-based service provider "from each said request." Thus, Requena fails to teach the limitations for which the Examiner is relying upon Requena to teach.

Appellants incorporate herein, as also applying to this particular limitation, the arguments presented on pages 6-8 of the First Appeal Brief. These arguments specifically address the failure, by the Examiner, to establish that Requena teaches the claimed "determining from each said request a particular location-based service provider which can service said request." Despite these arguments, on record, as to these particular limitations and this particular reference, the Examiner did not address these arguments in the Sixth Office Action.

The following arguments were presented on pages 13 and 14 of the First Appeal Brief. In the Second Response, claims 1, 3, and 5 were amended to clarify that different ones of location-based service providers specify different formats for receiving requests and Requena fails to teach that the different ones of location-based service providers specify different formats for receiving requests because it appears that Requena teaches that a single preferred format is used. However, as noted by Appellants in the Third Response, these arguments were completely ignored in the Third Office Action.

The Examiner responded to this argument in the first full paragraph on page 8 of the Fourth Office in which the Examiner asserted the following:

Finally, the fifth point of contention remarked upon by the applicant involves the claims that were amended in the amendment received on December 15, 2005. The applicant contends that the examiner completely ignored these amendments. The examiner disagrees with this assertion. The "response to remarks" portion of the last office action clearly states that the office action has been revised to clarify the examiner's position. Plus, the rejection portion of the office action also clearly cites the pertinent portions of the prior art believed by the examiner to teach the newly claimed trait features.

Both the Third and Fourth Office Action were issued subsequent to Appellants amending claims 1, 3, and 5 as described above. Moreover, the statement of rejection in both the Third and Fourth Office Actions are essentially identical. The Examiner's statement of the rejection in the Third and Fourth Office Actions as to the particular limitations at issue in claims 1 and 5 are as follows:

With regards to claims 1 and 5, Requena teaches a method of processing requests from location-based service applications for location-based services provided by a plurality of disparate location-based service providers, different ones of said plurality of disparate location-based service providers specifying different formats for receiving said requests, comprising the steps of the location service: receiving requests for location based-services (Requena teaches a design allowing location based services to receive requests from users (paragraphs 12-16, Requena)) (emphasis added)



As apparent from this passage, the Examiner has not specifically addressed the newly added language, which is underlined. The only "analysis" provided by the Examiner is that statement that "Requena teaches a design allowing location based services to receive requests from users," which does not address the limitations at issue. Moreover, the Examiner citation of paragraph [0012]-[0016], which were previously reproduced in the First Appeal Brief, does not address the claimed limitation at issue. Appellants, therefore, maintain that the Examiner has again failed address Appellants' arguments that Requena fails to identically disclose these limitations.

The Examiner's statement of the rejection in the Fourth Office as to the particular limitations at issue in claim 3 are as follows:

With regards to claim 3, Requena teaches a common location-based service adapter interface, comprising: a uniform input interface through which location-based services can be requested using a uniform format which is independent of any specific formatting required by a particular service adapter configured to process said location-based services; and, a uniform output interface through which specifically formatted result sets can be formatted using said uniform format, wherein said uniform input interface adapted to be connected to different service adapters specifying different formats for receiving requests (It is inherent in a networking design that data is converted when transferred between two networked devices. Plus see paragraphs 75, 105 and 130, Requena). (emphasis added)

Upon reviewing this paragraph, Appellants note that the Examiner has somewhat addressed the claimed limitation at issue (the underlined portion above) by asserting that [i]t is inherent in a networking design that data is converted when transferred between two networked devices." The Examiner's inherency argument presumes that Requena teaches formatting is required and that the formatting is performed by a particular entity (in this instance, the uniform output interface). However, as already addressed in the First Appeal Brief, the Examiner has failed to provide factual support for these assertions.

1           Despite these arguments, on record, as to these particular limitations and this particular  
2 reference, the Examiner did not address these arguments in the Sixth Office Action.

3  
4  
5           Turning to the Examiner's newly cited secondary reference of Lee, the Examiner asserted  
6 the following on page 3 of the Sixth Office Action:

7           While Requena's design teaches location-based services and standardized formats for  
8 messages, it does not explicitly teach a uniform format for the requests and results. In the same  
9 field of endeavor, Lee teaches a location-based system (GML requests) that standardizes messages  
10 to a uniform language (XML) (*see second paragraph of the introduction and section II, sub-*  
11 *section B, Lee*). Within section II, sub-section B of Lee's disclosure, Lee teaches, "encoding rules  
12 from geographical data to XML," and XML encoding of geographical data. Therefore, it would  
13 have been obvious to one skilled in the art, during the time of the invention, to have combined the  
14 teachings of Requena with those of Lee, to provide users with interoperability for various  
15 geographical data in the form of XML documents (*see conclusion, Lee*). (emphasis in original)  
16

17 For sake of clarity, the limitations in claim 1 associated with formatting are as follows:

18           specifically formatting each said request according to a specific format  
19 specified by said particular location-based service provider;  
20           uniformly formatting each result set produced from corresponding ones of  
21 said requests; and,  
22           forwarding said uniformly formatted result sets to the location-based  
23 service applications.  
24

25           Thus, as claimed, the requests for a particular location-based service provider are  
26 formatted according to the format specified by that particular location-based service provider.  
27 Since, a plurality of disparate location-based service providers exist and different ones of the  
28 plurality of disparate location-based service providers specify different formats for receiving said  
29 requests, the requests are not uniformly formatted. Instead, how a particular request is formatted  
30 is based upon the particular location-based service provider to which the request is being  
31 forwarded. However, when a response is received, regardless of the particular location-based

1 service provider that produces the response, the response forwarded to the location-based service  
2 application is uniformly formatted, and this uniformly formatted result is forwarded to the  
3 location-based service application initiating the request.

4  
5 However, as admitted by the Examiner, Requena teaches "standardized formats for  
6 messages" and "Lee teaches a location-based system (GML requests) that standardizes messages  
7 to a uniform language (XML). Thus, both the Examiner's cited references teach standardized  
8 (i.e., uniformly formatted) messages. However, as claimed, the requests sent to the particular  
9 location-based service providers are not uniformly formatted because the location-based service  
10 providers specify different formats. Therefore, even if one having ordinary skill in the art were  
11 realistically impelled to modify Requena in view of Lee the claimed invention would not result.

12  
13 The Examiner's asserted rationale to modify Requena in view of Lee is "to provide users  
14 with interoperability for various geographical data in the form of XML documents." However,  
15 referring to paragraph [0120], [0202], [0206], Requena already teaches using XML documents  
16 and Geography Markup Language (GML) along with GIS (Geographical Information System).  
17 As such, Appellants are unclear as to what specific benefits allegedly provided by the teachings  
18 of Lee that are not already obtained through the teachings of Requena. In this regard, Appellants  
19 respectfully submit that one having ordinary skill in the art would not have been realistically  
20 impelled to modify Requena in view of Lee since the Examiner's proposed modification to  
21 Requena does not provide any identifiable additional benefit.<sup>2</sup>

22  

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<sup>2</sup> See the non-precedential opinion of Ex parte Rinkevich, Appeal 2007-1317 ("we conclude that a person of ordinary skill in the art *having common sense* at the time of the invention would not have reasonably looked to Wu to solve a problem already solved by Savill") (emphasis in original).

1           Conclusion

2           Based upon the foregoing, Appellants respectfully submit that the Examiner's rejection  
3   under 35 U.S.C. § 103 based upon the applied prior art is not viable. Appellants, therefore,  
4   respectfully solicit the Honorable Board to reverse the Examiner's rejection under 35 U.S.C. § 103.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17, 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: March 12, 2008

Respectfully submitted,

/Scott D. Paul/

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CUSTOMER NUMBER 46320

## **VIII. CLAIMS APPENDIX**

1. A method of processing requests from location-based service applications for location-based services provided by a plurality of disparate location-based service providers, different ones of said plurality of disparate location-based service providers specifying different formats for receiving said requests, comprising the steps of the location service:

receiving requests for location based-services;

determining from each said request a particular location-based service provider which can service said request;

specifically formatting each said request according to a specific format specified by said particular location-based service provider;

uniformly formatting each result set produced from corresponding ones of said requests;  
and,

forwarding said uniformly formatted result sets to the location-based service applications.

2. The method of claim 1, wherein said uniformly formatted result sets are result sets which have been formatted according to the Geography Markup Language (GML).

3. A common location-based service adapter interface, comprising:

a uniform input interface through which location-based services can be requested using a uniform format which is independent of any specific formatting required by a particular service adapter configured to process said location-based services; and,

and a uniform output interface through which specifically formatted result sets can be formatted using said uniform format, wherein

said uniform input interface adapted to be connected to different service adapters specifying different formats for receiving inputs.

4. The common location-based service adapter interface of claim 3, wherein said uniform input interface comprises:

a plurality of location-based service adapter objects, each said adapter object being configured to provide said at least one location-based service responsive to receiving a uniformly formatted location-based service request;

a location service object configured to provide a reference to a particular one of said location-based service adapter objects based upon a specified location-based service; and,

a plurality of location request objects configured to define location-based service request parameters required by generic ones of said location-based service adapter objects.

5. A machine readable storage having stored thereon a computer program for processing requests from location-based service applications for location-based services provided by a plurality of disparate location-based service providers, different ones of said plurality of disparate location-based service providers specifying different formats for receiving said requests, the computer program comprising a routine set of instructions for causing the machine to perform the steps of:

receiving requests for location based-services;

determining from each said request a particular location-based service provider which can service said request;

specifically formatting each said request according to a specific format specified by said particular location-based service provider, and uniformly formatting each result set produced from corresponding ones of said requests; and,

forwarding said uniformly formatted result sets to the location-based service applications.

6. The machine readable storage of claim 5, wherein said uniformly formatted result sets are result sets which have been formatted according to the Geography Markup Language (GML).



**IX. EVIDENCE APPENDIX**

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellants in this Appeal, and thus no evidence is attached hereto.

**X. RELATED PROCEEDINGS APPENDIX**

Since Appellants are unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.